CLAIMS

1. A method for detecting an emitter signal in a measurement system, the method comprising:

measuring, by the measurement system, parameters associated with the emitter signal;

creating, by the measurement system, a model of the emitter signal based on the measured parameters; and

using, by the measurement system, the model to detect the emitter signal.

2. The method according to claim 1, further comprising an act of determining a scan strategy using the model of the emitter signal.

3. The method according to claim 1, wherein the parameters comprise at least one of a group comprising frequency, gain, power, beam width, scan and polarization.

4. The method according to claim 1, further comprising an act of determining a relation between antenna gain versus azimuth for at least one polarization.

5. The method according to claim 1, further comprising an act of determining a plurality of unique illumination times for the emitter signal.

6. The method according to claim 1, further comprising an act of determining a detection revisit time based on the plurality of unique illumination times.

7. The method according to claim 5, further comprising an act of correlating an extended dwell time with the antenna gain versus azimuth for the at least one polarization to determine the plurality of illumination times for the emitter signal.

8. The method according to claim 4, further comprising an act of providing at least one missing point in the relation between antenna gain versus azimuth for the at least one polarization.

9. The method according to claim 4, further comprising an act of determining a relation between antenna gain versus azimuth for at least one other polarization.

10. The method according to claim 9, further comprising an act of merging the relation between antenna gain versus azimuth for at least one polarization and the relation between antenna gain versus azimuth for at least one other polarization.

11. The method according to claim 10, wherein the act of merging further comprises an act of using at least one data point in time, a value corresponding to the greater of a first point defined by the relation between antenna gain versus azimuth for at least one polarization and a second point defined by the relation between antenna gain versus azimuth for at least one other polarization.

12. A computer-readable medium having computer-readable signals stored thereon that define instructions that, as a result of being executed by a computer, instruct the computer to perform a method for detecting an emitter signal in a measurement system, the method comprising acts of:

measuring, by the measurement system, parameters associated with the emitter signal;

creating, by the measurement system, a model of the emitter signal based on the measured parameters; and

using, by the measurement system, the model to detect the emitter signal.

13. The computer-readable medium according to claim 12, wherein the method further comprises an act of determining a scan strategy using the model of the emitter signal.

14. The computer-readable medium according to claim 12, wherein the parameters comprise at least one of a group comprising frequency, gain, power, beam width, scan and polarization.

15. The computer-readable medium according to claim 12, wherein the method further comprises an act of determining a relation between antenna gain versus azimuth for at least one polarization.

16. The computer-readable medium according to claim 12, wherein the method further comprises an act of determining a plurality of unique illumination times for the emitter signal.

17. The computer-readable medium according to claim 12, wherein the method further comprises an act of determining a detection revisit time based on the plurality of unique illumination times.

18. The computer-readable medium according to claim 16, wherein the method further comprises an act of correlating an extended dwell time with the antenna gain versus azimuth for the at least one polarization to determine the plurality of illumination times for the emitter signal.

19. The computer-readable medium according to claim 15, wherein the method further comprises an act of providing at least one missing point in the relation between antenna gain versus azimuth for the at least one polarization.

20. The computer-readable medium according to claim 15, wherein the method further comprises an act of determining a relation between antenna gain versus azimuth for at least one other polarization.

21. The computer-readable medium according to claim 20, wherein the method further comprises an act of merging the relation between antenna gain versus azimuth for at least one polarization and the relation between antenna gain versus azimuth for at least one other polarization.

22. The computer-readable medium according to claim 21, wherein the act of merging further comprises an act of using at least one data point in time, a value corresponding to

the greater of a first point defined by the relation between antenna gain versus azimuth for at least one polarization and a second point defined by the relation between antenna gain versus azimuth for at least one other polarization.